slides. The title of these lectures, "A Meteorologist's Dream," or "Dreaming in the Interest of Mankind," shows the happy combination of poetry and science that characterizes Mr. Sims's popular lectures.

Mr. S. S. Bassler, Local Forecast Official, Cincinnati, Ohio, lectured on January 24 before the Cincinnati Technical School on meteorology as illustrating the general principle of "What is worth doing at all is worth doing well."

CUMULUS CLOUDS ABOVE COLUMNS OF SMOKE.

Referring to the MONTHLY WEATHER REVIEW for August, 1900, page 325, and October, page 433, Mr. George C. Stocking, voluntary observer at Grand Mound, Washington, reports as follows:

In August last, about sixty acres of heavy fir slashing was being burned. This produced a column of very dense black smoke which rose to a great height. I made an estimate of the height of the column at the time; the distance from me was about two miles and the angular elevation of the top of the column about 30°. When it reached its greatest height, the top of the column turned white, overflowed and spread out, presenting every appearance of a large cumulus cloud. Occasionally it would boil up in the center above the general level of the top of the cloud and spill over upon the great mass below. There were a few cirrus clouds high up, but no other cumulus clouds in sight. The time of day was about 2 p. m. [Pacific or one hundred and twentieth meridian time.—ED.] The fire and smoke were to the southeast of me. I did not think of the white and cloudy appearance as being due to any reflection of light, but supposed it to be a true cumulus cloud caused by the condensation of the moisture contained in the ascending column of heated air.

I remember observing another column of smoke about ten miles distant in the north. This column did not spread out, but stood up tall and impressive, like a rather dark cumulus cloud, but the sky was overcast.

THE WEATHER OF THE MONTH.

By ALFRED J. HENRY, Professor of Meteorology.

CHARACTERISTICS OF THE WEATHER FOR JANUARY.

The characteristics of January, 1901, were unusual warmth and dryness. The areas of low pressure for the most part moved rapidly along the northern boundary and down the St. Lawrence Valley. There were no very severe cold waves and snowfall was below the average.

PRESSURE.

The distribution of monthly mean pressure is graphically shown on Chart IV and the numerical values are given in Tables I and VI.

There were no special features as regards the distribution of monthly mean pressure. As compared with the preceding month, monthly mean pressure was lower in the Rocky Mountain districts and thence westward to the Pacific coast. Pressure was also low, as compared with the preceding month, on the Atlantic coast, in the Lake region, and the Ohio Valley. It was also below the seasonal average, except in the southern Rocky Mountain region and locally in the northern Plateau.

TEMPERATURE OF THE AIR.

The distribution of monthly mean surface temperature, as deduced from the records of about 1,000 stations, is shown on Chart VI.

Temperature was considerably above the normal in all districts, except a narrow fringe along the Atlantic coast from New England to Florida and in the Great Valley of California from Red Bluff to Sacramento. The region of greatest positive departure was in the upper Missouri Valley, where the daily means ranged from 10° to 12° above the seasonal normal. This great excess in the daily and monthly means of temperature was due to the large number of low areas that moved along the northern boundary, giving southerly and southwesterly winds throughout the northeastern Rocky Mountain slope and the Missouri Valley. The temperature was also much above the seasonal average from northern Texas northward over western Arkansas, Kansas, Oklahoma, and Indian Territory, to the British Possessions. Maximum temperatures above 80° were registered in Florida and in southern Texas and southern California. A maximum temperature as high as 40° was not registered in the Lake Superior region, in northern Minnesota, and the northeastern portion of North Dakota. Minimum temperatures below freezing were not registered in central and southern Florida nor along the coast of California. Freezing temperatures were recorded in northern Florida and quite generally along the Gulf coasts. The lowest minimum recorded at any Weather Bureau station was 36° below zero at Lander, Wyo., and at other points in North Dakota and Minnesota.

The average temperature for the several geographic districts and the departures from the normal values are shown in the following table:

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	10	25.2	— 0.3		
Middle Atlantic	12	33.6	+ 1.1		
South Atlantic	10	46.6	0.0		
Florida Peninsula	7	59.6	— 0.5		
East Gulf	7	51.2	+ 1.4		
West Gulf	7	52 6	+ 5.9		
Ohio Valley and Tennessee	12	36 1	+ 1.8		
Lower Lake	8	26 5	+ 1.1		
Upper Lake	9	20 4	+ 2.9		
North Dakota	8	9.4	+ 6.5		
Upper Mississippi Valley	11	27.3	+ 6.2		
Missouri Valley	10	28 9	+ 9.0		
Northern Slope	7	24 3	+ 7.3		
Middle Slope	6	34.5	+ 5.4		
Southern Slope	6	43.6	+ 5.2		
Southern Plateau	15	38.2	+ 8.1		
Middle Plateau	9	29.3	+ 5.7		
Northern Plateau	10	27.8	+ 4.0		
North Pacific	9	39.3	+ 0 4		
Middle Pacific	5	47.4	+ 0.3		
South Pacific	4	52.8	+ 2 2		

In Canada.—Prof. R. F. Stupart says:

Temperature was a little below average in eastern and northeastern Ontario, in western Quebec, and also over the greater portion of British Columbia, and above the average over the large remaining portion of Canada. In many parts of Alberta and Assiniboia the average was exceeded by from 6° to 8°.

PRECIPITATION.

Much less than the average amount of rain and snow fell in all districts, except the middle and south Atlantic coast region. The rainfall in the central and eastern Gulf States,

and in portions of Florida, Georgia, and in South Carolina was ample for the needs of the season, although somewhat less than the normal for the time and place. An abundance of rain fell on the Pacific coast. Heavy rains fell in southern California where drought has prevailed for the last three years. Snowfall was deficient in amount and not well distributed. At the close of the month the ground was covered with snow in New England, the Middle Atlantic States, except in southern New Jersey, Delaware, and the coast region of Maryland and Virginia. The ground was also covered in the lower Lake region, including Ohio; the upper Lake region, and throughout northern Indiana, Illinois, northeastern Iowa, Minnesota, and the northeastern portion of North Dakota. Snow covered the ground also in the mountain districts of Colorado, Wyoming, Montana, Nevada, California, Idaho, and northeastern Oregon.

The distribution of snowfall is shown by Chart IX, and the amount on the ground at the end of the month by Chart X.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		Inches.		*Inches.*	*Inches.*
New England	10	2.47	61	—1.6	
Middle Atlantic	12	2.39	67	—1.2	
South Atlantic	10	2.84	67	—1.4	
Florida Peninsula	7	2.64	90	—0.3	
East Gulf	7	4.65	89	—0 6	
West Gulf	7	1.66	48	—1.8	
Ohio Valley and Tennessee	12	2.37	57	—1.8	
Lower Lake	8	2.05	77	—0.6	
Upper Lake	9	1.22	60	—0.8	
North Dakota	8	0.34	53	—0.3	
Upper Mississippi Valley	11	1.11	64	—0.6	
Missouri Valley	10	0.44	42	—0.6	
Northern Slope	7	0.23	37	—0.4	
Middle Slope	6	0.24	29	—0.6	
Southern Slope	6	0.25	24	—0.8	
Southern Plateau	15	1.17	100	0.0	
Middle Plateau	9	1.00	71	—0.4	
Northern Plateau	10	1.69	81	—0.4	
North Pacific	9	7.10	99	—0.1	
Middle Pacific	5	6.55	118	+1.0	
South Pacific	4	4.48	167	+1.8	

In Canada.—Professor Stupart says:

Precipitation was generally above average in the Northwest Territories, also in many portions of the Maritime Provinces, but elsewhere in Canada, except very locally, it was below average. The deficiency in parts of British Columbia amounted to from one and one-half to two and one-half inches, while in Quebec the mean was about an inch below the average. In Ontario it was as much as 2.7 inches below average at Kingston, and 1 inch below at Southampton. At the end of the month the ground was well covered with snow in nearly all portions of Canada, this being especially the case in the Qu'Appelle Valley, northern and eastern Ontario, the Province of Quebec, and the greater portion of the Maritime Provinces. Qu'Appelle reports 38 inches of snow on the ground; White River 24 inches; Clontarf and Ottawa, 30 inches; Montreal 26 inches; Quebec 25 inches; Father Point, 33 inches; Fredericton, 22 inches; Sussex and Point Le Preaux, 30 inches.

SLEET.

The following are the dates on which sleet fell in the respective States:

Alabama, 17. Arizona, 29. Arkansas, 9. California, 1, 2, 3, 4, 6, 8, 11, 12, 24, 25, 31. Colorado, 8, 9, 25. Connecticut, 7, 9, 10, 11, 12, 14, 15, 24. District of Columbia, 24. Georgia, 17, 26. Idaho, 6. Illinois, 9, 10, 11, 14, 17, 22, 23, 25, 26, 29, 30. Indiana, 9, 10, 11, 21, 23, 27, 29, 30, 31. Indian Territory, 9, 10, 30. Iowa, 6, 7, 9, 10, 16, 23, 24, 25, 26, 27, 29, 31. Kansas, 9, 25, 26. Kentucky, 25, 26, 27, 29. Maine, 9, 24, 26, 27. Maryland, 7, 18, 22, 24, 25. Massachusetts, 9, 10, 11, 12, 23, 24. Michigan, 6, 7, 8, 9, 10, 14, 15. Minnesota, 13, 15. Mississippi, 11, 30. Missouri, 7, 8, 9, 10, 11, 17, 22, 24, 25, 26. Nebraska, 24, 25, 26. Nevada, 24. New Hampshire, 8, 9, 12, 22, 24. New Jersey, 10, 13, 15, 18, 25. New Mexico, 9, 25, 27, 29. New York, 7, 9, 10, 11, 12, 13, 14, 15, 16, 19, 21. North Carolina, 2, 17, 18, 25, 26, 27, 29, 30. Ohio, 9, 11, 14, 23, 24, 25, 27, 29, 30. Oklahoma, 8, 9, 10. Oregon, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 22, 23, 24. South Dakota, 28. Tennesseee, 17, 24, 26, 27, 30. Texas, 1, 10, 18, 19. Utah, 4, 5, 6, 7, 12, 21, 22. Vermont, 7, 8, 9, 10, 12, 22. Virginia, 24, 26, 27, 28. Washington, 2, 3, 4, 11, 21, 22, 24, 30. West Virginia, 7, 12, 24, 25, 30. Wisconsin, 6, 8, 9, 14, 23. Wyoming, 8.

HAIL.

The following are the dates on which hail fell in the respective States:

Arizona, 8, 28, 29. Arkansas, 23. California, 9, 11, 24, 31. Florida, 4. Kentucky, 23. Louisiana, 16. Missouri, 23. New Mexico, 29. Oregon, 1, 2, 4, 5, 6, 7, 8, 10, 11, 21, 23, 24. Pennsylvania, 7, 10, 11, 12, 18. South Carolina, 17, 27, 29.

SUNSHINE AND CLOUDINESS.

The distribution of sunshine is graphically shown on Chart VII, and the numerical values of average daylight cloudiness, both for individual stations and by geographical districts, appear in Table I.

The averages for the various districts, with departures from the normal, are shown in the table below:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	6.4	+0.6	Missouri Valley	4.2	—0.9
Middle Atlantic	5.9	+0.3	Northern Slope	4.6	0.0
South Atlantic	5.0	—0.3	Middle Slope	3.8	0.0
Florida Peninsula	4.2	—0.5	Southern Slope	4.9	+1 1
East Gulf	4.9	—0.7	Southern Plateau	3.5	+0.6
West Gulf	5 4	0.0	Middle Plateau	5.0	+0.2
Ohio Valley and Tennessee.	6.2	—0.2	Northern Plateau	7.0	—0.3
Lower Lake	8.2	+0.7	North Pacific Coast	7.5	+0.4
Upper Lake	7.3	+0.5	Middle Pacific Coast	5.6	+0.5
North Dakota	4.3	—0 4	South Pacific Coast	5.0	+0.9
Upper Mississippi	5.0	—0.3			

HUMIDITY.

The averages by districts appear in the subjoined table:

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
	%			%	
New England	75	— 1	Missouri Valley	68	—10
Middle Atlantic	74	— 1	Northern Slope	71	+ 1
South Atlantic	74	— 4	Middle Slope	63	— 4
Florida Peninsula	78	— 4	Southern Slope	54	—10
East Gulf	74	— 4	Southern Plateau	48	— 3
West Gulf	72	— 3	Middle Plateau	67	— 2
Ohio Valley and Tennessee.	75	— 2	Northern Plateau	80	— 1
Lower Lake	80	— 1	North Pacific Coast	88	+ 1
Upper Lake	84	+ 2	Middle Pacific Coast	81	0
North Dakota	80	— 1	South Pacific Coast	71	— 3
Upper Mississippi	79	+ 1			

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which